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A controlled survey of sacroiliitis in Behçet's disease

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SUMMARY Among 37 patients with Behçet's disease in Turkey the radiographic presence of sacroiliitis was no more frequent than in 28 age and sex matched controls.

There is controversy whether sacroiliitis usually occurs in Behçet's disease (BD). Some authors have reported no sacroiliitis[1 2] others that it is quite common.[3] In fact at one point the disease was classified along with the seronegative spondylarthritides, but this has been challenged.[4] Although some investigators read their radiographs blindly (M. A. Chamberlain, personal communication), none of the studies reported so far have utilised formal control groups.

We have investigated in a blind study the radiographic presence of sacroiliitis in BD along with age and sex matched controls.

Material and methods

We took anteroposterior radiographs of the pelvis of 44 consecutive patients with BD irrespective of back symptoms. Four patients had intermittent back pain with no physical findings related to the back. The patients were attending a multidisciplinary BD outpatient clinic. All fulfilled O'Duffy's criteria for BD[5]; none were both HLA B5 negative pathergy negative.[6] There were 38 males and 6 females. The mean age was 34 years (SD, 11). Twenty-eight members of hospital staff, 24 males and 4 females, including 16 physicians, consented to serve as controls. Their mean age was 30 (SD, 7). The AP radiographs of the pelvis of 5 patients with bone fide ankylosing spondylitis served as positive controls.

All radiographs were read blind by one of us (M.T.) in two 2-hour sessions a few days apart. The control radiographs were evenly distributed among the sessions. The radiographic evaluation of the sacroiliac joints was made along the lines recommended by Macrae *et al.*[7] However, we used 4 grades (normal, suspicious or minimal, moderate, advanced) instead of 5.

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Table 1 *Number of radiographs belonging to each grade for probands and the 2 control groups*

	n	*Grade 0*	*Grade 1*	*Grade 2*	*Grade 3*
Behçet's	37	24	4	9	—
Healthy controls	23	10	8	5	—
Ankylosing spondylitis	4	—	—	—	4

Results

Five radiographs were rejected for their poor quality from the negative group, 7 from the probands, and 1 from the positive controls. All 4 patients with back pain had good-quality radiographs and had 0 grading.

The number of radiographs belonging to each grade, for probands and the 2 control groups, is given in Table 1. Whether one considers any degree of radiological change as sacroiliitis (grades 1 and 2 combined versus grade 0: $\chi^2 = 1{\cdot}8$, $p > 0{\cdot}05$) or looks only at extremes (grade 2 versus grade 0: $\chi^2 = 0{\cdot}007$, $p > 0{\cdot}05$) it becomes evident that sacroiliitis is not seen with increased frequency among the probands.

Discussion

There have been contradictory reports on the prevalence of sacroiliitis in Behçet's disease.[8] The highest prevalence is reported as 63% in Dilşen's series of 106 patients.[3] The Japanese, though they have not examined the question but have a very large pool of patients report only 0·5–1·00% prevalence.[9] British authors have not reported an association either.[2 8] In a previous communication we have reported a 2/30 (7%) prevalence of sacroiliac involvement.[4] Those studies, as we have pointed out, lacked controls.

In a controlled study we have found no evidence of an increased frequency of sacroiliitis among the patients with BD. The case reports of sacroiliitis in

BD[8] might of course reflect a chance association. In fact we have one such patient with definite ankylosing spondylitis among our 184 patients registered in our clinic. It should also not be forgotten that diseases that cause sacroiliitis tend to affect the young male, as Behçet's disease does in our part of the world,[6] and they tend to come to a rheumatologist. These biases working together might bring more patients with sacroiliitis into a series of patients with Behçet's disease. Even with these biases considered it is hard to explain a reported prevalence of 63%.[3] It should be pointed out, however, that most of Dilşen *et al.'s* patients are reported as having minimal or moderate disease, and there is some evidence that sacroiliac changes in the general population might be more common in areas where BD is also common, such as the Mediterranean basin.[10]

References

[1] Mason R M, Barnes C G. Behçet's syndrome with arthritis. *Ann Rheum Dis* 1959; **28:** 95–103.

[2] Chamberlain M A. Behçet's syndrome in 32 patients in Yorkshire. *Ann Rheum Dis* 1977; **36:** 491–9.

[3] Dilsen N, Koniçe M, Övül C. Arthritic patterns in Behçet's disease. In: Dilsen N, Knoiçe M, Övül C, eds. *Behçet's Disease*. Amsterdam, Oxford: Excerpta Medica, 1979: 145–55.

[4] Yazici H. Behçet's disease. *Br Med J* 1978; **ii:** 952.

[5] O'Duffy J D. Suggested criteria for diagnosis of Behçet's disease. *VI Pan Am Congr Rheum Dis* (abstr), 1974: 18.

[6] Yazici H, Tüzün Y, Pazarli H, Yalçin B, Yurdakul S, Müftüoglu A. The combined use of HLA B5 and the pathergy test as diagnostic markers of Behçet's disease in Turkey. *J Rheumatol* 1980; **7:** 206–10.

[7] Macrae I F, Haslock D I, Wright V. Grading of films for sacroiliitis in population studies. *Ann Rheum Dis* 1971; **30:** 58–66.

[8] Barnes C G. Joint manifestations of Behçet's syndrome. In: Lehner T, Barnes C G, eds. *Behçet's Syndrome*. London: Academic Press, 1979: 199–212.

[9] Shimizu T, Ehrlich G E, Inaba G, Hayashi K. Behçet disease. *Semin Arthritis Rheum* 1979; **8:** 223–60.

[10] Ehrlich G E. Intermittent and periodic arthritic syndromes. In: McCarty D J, ed. *Arthritis and Allied Conditions*. Philadelphia: Lea and Fabiger, 1979: 663–80.